## ABSTRACT

The present invention provides a method for cleaning a microstructure capable of efficiently removing pollutants such as resist residue without causing damage to a substance such as a low-k film which is necessary for a semiconductor wafer. The cleaning method includes fluidizing a cleaning agent composition essentially containing carbon dioxide and a cleaning component under high pressure, and bringing the cleaning agent composition into contact with a microstructure to remove a substance adhering to the microstructure, wherein hydrogen fluoride is used as the cleaning component.